25

5

10

Patent Application

Heraeus Tenevo AG Method and Device for Manufacture of a Quartz Glass Body

Summary

In a known procedure for manufacture of a quartz glass body, a glass starting material and fuel gas are fed to a rotationally symmetrical deposition burner (1) having several annular gap nozzles (7-9) and being formed by coaxial arrangement of a number of quartz glass tubes (2-5), such glass starting material in a burner flame forming SiO₂ particles which, under back and forth motion of the deposition burner (1) along the longitudinal axis of a rotating mandrel (12), are deposited on such rotating mandrel under formation of an essentially cylindrical porous blank. To enable replacement of such deposition burner without major efforts in terms of work and costs, the procedure of the inventioin proposes to use a deposition burner (1) the annular gap nozzles (7-9) of which have gap widths with a maximum dimensional deviation of 0.1 mm, and that the deposition burner (1) is co-axially encompassed and aligned in a given direction of space by means of an alignment unit (27; 32) engaging the burner's outer surface (35), and that the alignment unit (27; 32) is connected to a shifting device (28) for positioning the former within a horizontal plane. In a suitable device for implementation of this procedure, a deposition burner (1) is manufactured to possess annular gap nozzles (7-9) with gap width deviations of no more than 0.1 mm, the outer surface (35) of such burner being coaxially engaged by an alignment unit (27: 32) capable of rotating at least in a first plane and connected to a shifting unit (28) capable of being positioned within a second horizontal plane (Fig. 2).